

**IN THE CLAIMS:**

Please amend the claims as follows:

1. (Currently Amended) A hydrogen supply unit comprising:

reformation means for reforming a source gas containing hydrocarbons to generate a hydrogen-rich reformed gas,

a fuel cell in direct communication with a downstream outlet of the reformation means and consuming the reformed gas for generating electric power; and

purification means for purifying hydrogen in an exhaust gas discharged from said fuel cell, wherein the purification means comprises:

a membrane separator for conducting membrane separation of a hydrogen gas and a first offgas containing a carbon compound based on a hydrogen permeable membrane;

an adsorber for conducting separation of the hydrogen gas and a second offgas containing moisture by purifying the hydrogen gas separated by the membrane separator by use of a pressure swing absorption method;

a first passage directing the first offgas separated by the membrane separator to the reformation means; and

a second passage directing the second offgas separated the adsorber to the fuel cell,

wherein the reformation means reforms the source gas, and consumes the first offgas directed to the reformation means by the first passage in addition to the source gas, and

wherein the fuel cell generates electric power using the second offgas directed to the fuel cell by the second passage.

2. **(Previously Presented)** The hydrogen supply unit according to claim 1, wherein said purification means purifies the hydrogen, which is passed through a hydrogen permeable membrane and a hydrogen purifying adsorbent for purifying the hydrogen.

3. **(Currently Amended)** The hydrogen supply unit according to claim 1, wherein said purification means further comprises:

~~a membrane separator for conducting membrane separation based on a hydrogen permeable membrane;~~

a pressurizer for pressurizing the ~~exhaust~~ hydrogen gas purified by said membrane separator, wherein the adsorber purifies the exhaust gas pressurized by the pressurizer; and

~~an adsorber for purifying the exhaust gas pressurized by said pressurizer.~~

4. **(Currently Amended)** The hydrogen supply unit according to claim 1, wherein ~~said purification means comprises a membrane separator for conducting membrane separation based on a~~ the hydrogen permeable membrane is provided with a function for pressurizing hydrogen; and an the adsorber purifies ~~for purifying~~ the exhaust gas pressurized by said membrane separator.

5. **(Currently Amended)** The hydrogen supply unit according to claim 1 ~~[[3]]~~, wherein the membrane separator for conducting the membrane separation comprises electrodes on front and back surfaces of said hydrogen permeable membrane, and conducts the purification of the hydrogen by providing an electrical

potential difference between the front and back surfaces of said hydrogen permeable membrane to make hydrogen ions permeate said hydrogen permeable membrane.

6. **(Currently Amended)** The hydrogen supply unit according to claim 1 ~~[[3]]~~, wherein the adsorber includes a plurality of containers charged with an adsorbent, and purifies the hydrogen by passing the exhaust gas containing the hydrogen through the plurality of containers while varying the pressure of the exhaust gas.

7. **(Currently Amended)** The hydrogen supply unit according to claim 3, further comprising:

~~a first passage directing an offgas separated by said hydrogen permeable membrane to said reformation means, and~~

a second passage directing an offgas separated by said pressurizer to said fuel cell,

wherein said reformation means reforms said source gas, and consumes the offgas directed to the reformation means by the first passage in addition to said source gas; and

wherein said fuel cell generates electric power by using the offgas directed to the fuel cell by the second passage.

8. **(Cancelled).**

9. **(Currently Amended)** The hydrogen supply unit according to Claim 1 ~~[[8]]~~, comprising storage means for storing the hydrogen purified by said purification means.

10. **(Previously Presented)** The hydrogen supply unit according to claim 9, wherein said storage means comprises:

a pressurization means in storage for pressurizing the hydrogen gas to be stored,  
and  
connection means for being connected to a vehicle that consumes hydrogen as fuel.

11. **(Currently Amended)** The hydrogen supply unit according to claim 1 ~~[[3]]~~, comprising:

storage means for storing the hydrogen purified by said purification means, wherein said storage means comprises:

a first tank for storing the gas supplied from said adsorber;  
a pressurizer in storage for pressurizing the gas supplied from said first tank;  
a second tank for storing the gas supplied from said pressurizer in storage; and  
a connector for connecting said second tank to a vehicle that consumes hydrogen as fuel.

12. **(Previously Presented)** The hydrogen supply unit according to claim 4, wherein the membrane separator for conducting the membrane separation comprises electrodes on front and back surfaces of said hydrogen permeable membrane, and conducts the purification of the hydrogen by providing an electrical potential difference between the front and back surfaces of said hydrogen permeable membrane to make hydrogen ions permeate said hydrogen permeable membrane.

13. **(Currently Amended)** The hydrogen supply unit according to claim 1 ~~[[4]]~~, wherein the adsorber includes a plurality of containers charged with an adsorbent, and purifies the hydrogen by passing the exhaust gas containing the hydrogen through the plurality of containers while varying the pressure of the exhaust gas.

14. **(Currently Amended)** The hydrogen supply unit according to claim 1 ~~[[4]]~~, comprising:

storage means for storing the hydrogen purified by said purification means, wherein said storage means comprises:

a first tank for storing the gas supplied from said adsorber;

a pressurizer in storage for pressurizing the gas supplied from said first tank;

a second tank for storing the gas supplied from said pressurizer in storage; and

a connector for connecting said second tank to a vehicle that consumes hydrogen as fuel.

15. **(Currently Amended)** A hydrogen supply unit comprising:

a membrane separator for separating hydrogen having moisture therein, by pressurizing a hydrogen-rich reformed gas for pressurizing the hydrogen; and

an adsorber for purifying the hydrogen by removing the moisture from the pressurized hydrogen by using a pressure swing adsorption method,

wherein the adsorber includes a plurality of containers charged with an adsorbent, and purifies the hydrogen by passing an exhaust gas containing the hydrogen through

the plurality of containers while varying a pressure of the exhaust gas via the membrane separator.

16. **(Previously Presented)** The hydrogen supply unit according to claim 15, wherein the membrane separator comprises electrodes on front and back surfaces of a hydrogen permeable membrane, and wherein the membrane separator conducts the separation and the pressurization of the hydrogen by providing an electrical potential difference between the front and back surfaces of the hydrogen permeable membrane to facilitate hydrogen ions permeating the hydrogen permeable membrane.

Claim 17 **(Cancelled)**.

18. **(Previously Presented)** The hydrogen supply unit according to claim 16, wherein the adsorber includes a plurality of containers charged with an adsorbent, and purifies the hydrogen by passing an exhaust gas containing the hydrogen through the plurality of containers while varying a pressure of the exhaust gas.

19. **(Previously Presented)** The hydrogen supply unit according to claim 15, further comprising:

reformation means for reforming a source gas containing hydrocarbons to generate the hydrogen-rich reformed gas, wherein the reformation means reforms the source gas by heating with the aid of heating means that uses the source gas as fuel, and consumes an offgas separated by the membrane separator, in addition to the source gas, as the fuel for the heating means when reforming the source gas; and

a fuel cell provided between the reformation means and the membrane separator, for generating electric power by using the offgas, separated by the adsorber, in addition to the reformed gas.

20. **(Previously Presented)** The hydrogen supply unit according to claim 16, further comprising:

reformation means for reforming a source gas containing hydrocarbons to generate the hydrogen-rich reformed gas, wherein the reformation means reforms the source gas by heating with the aid of heating means that uses the source gas as fuel, and consumes an offgas separated by the membrane separator, in addition to the source gas, as the fuel for the heating means when reforming the source gas; and

a fuel cell provided between the reformation means and the membrane separator, for generating electric power by using the offgas, separated by the adsorber, in addition to the reformed gas.

21. **(Previously Presented)** The hydrogen supply unit according to claim 15, further comprising storage means for storing the hydrogen purified by the adsorber.

22. **(Previously Presented)** The hydrogen supply unit according to claim 16, further comprising storage means for storing the hydrogen purified by the adsorber.

23. **(Previously Presented)** The hydrogen supply unit according to claim 21, wherein the storage means comprises:

a pressurization means in storage for pressurizing the hydrogen gas to be stored, and

connection means for being connected to a vehicle that consumes the hydrogen as fuel.

24. **(Previously Presented)** The hydrogen supply unit according to claim 22, wherein the storage means comprises:

a pressurization means in storage for pressurizing the hydrogen gas to be stored, and

connection means for being connected to a vehicle that consumes the hydrogen as fuel.

25. **(Previously Presented)** The hydrogen supply unit according to claim 15, further comprising:

storage means for storing the hydrogen purified by the adsorber, wherein the storage means comprises:

a first tank for storing the gas supplied from the adsorber;

a pressurizer in storage for pressurizing the gas supplied from the first tank;

a second tank for storing the gas supplied from the pressurizer in storage; and

a connector for connecting the second tank to a vehicle that consumes the hydrogen as fuel.

26. **(Previously Presented)** The hydrogen supply unit according to claim 16, further comprising:

storage means for storing the hydrogen purified by the adsorber, wherein the storage means comprises:

a first tank for storing the gas supplied from the adsorber;

a pressurizer in storage for pressurizing the gas supplied from the first tank;

a second tank for storing the gas supplied from the pressurizer in storage; and



a connector for connecting the second tank to a vehicle that consumes the hydrogen as fuel.